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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,288	09/26/2003	Jutta Bindewald	13913-053001 / 2002P10179	8182
32864 7590 03/14/2007 FISH & RICHARDSON, P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER KANG, INSUN	
			ART UNIT 2193	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/14/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/672,288	BINDEWALD ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Insun Kang	2193	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 9/26/03, 2/27/04, 3/11/04, and 6/1/04.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/11/2004</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This action is responding to application papers dated 9/26/2003, 2/27/2004, 3/11/2004, and 6/1/2004.
2. Claims 1-20 are pending in the application.

### ***Drawings***

3. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 7-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 7-13 are non-statutory because they are directed to a computer program product embodied in an information carrier (i.e. signals such as electrical, electromagnetic etc). Such carrier does not have a physical structure, rather it is the

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physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism *per se*. Moreover, it does not fit within the definition of the categories of patentable subject matter set forth in § 101. Thus the claims represent non-functional descriptive material that is not capable of producing a useful result, and hence represent only abstract ideas. Therefore, the claims are non-statutory.

Claims 14-20 are non-statutory because it is directed to a system that can be a software system (program *per se*) rather than a hardware/computer system (see spec, page 7). The system does not have physical structural elements and the system comprises only instructions that are disembodied arrangements so as to be called a "computer program" or compilation of facts, information, or data *per se*, without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer ("acts") or tangible computer readable medium (excluding a communication/transmission medium such as a signal, carrier wave etc) so as to enable the computer to perform the claimed functionalities. With no other structure in the independent claims to rely on, the alleged "system" of the claims turns out to be non-statutory for being a software system or computer program *per se*. Thus the claims represent non-functional descriptive material that is not capable of producing a useful result, and hence represent only abstract ideas. Therefore, the claims are non-statutory. It is recommended to change a "system" to an "apparatus."

The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101.

[http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101\\_20051026.p](http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf)

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***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Per claims 1, 7, and 14:

It is unclear as to what "it" in claim 1 (line 6), claim 7 (line 7), and claim 14 (line 6) it is referring. It is interpreted as "the data."

As per claims 2-6, 8-13, and 15-20, these claims are rejected for dependency on the above rejected parent claims.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (US Patent 6,826,746) hereafter Evans, in view of Applicant's Admitted

Prior Art (hereinafter referred to as "APA") disclosed in the instant application, further in view of SAP AG ("BC-SAPRouter," 2000), and still further in view of Chen et al. (US Patent 7,136,857) hereafter Chen.

Per claim 7:

Evans discloses: run a debugging system on a local site, the local site being separated from a remote site (i.e. "Java Platform Debugger Architecture...being run by a local or remote Java Virtual Machine," col. 4 lines 4-7; col. 5 lines 19-35).

Evans does not explicitly teach the systems are separated by at least one firewall. However, APA teaches protecting a system by a firewall was known in the pertinent art, at the time applicant's invention was made, to protect "the resources of a private network from users of other networks (spec, page 1, lines 14-21)." It would have been obvious for one having ordinary skill in the art to modify Evans' disclosed system to incorporate the teachings of APA. The modification would be obvious because one having ordinary skill in the art would be motivated to prevent security risks as suggested by APA (spec, page 1, lines 14-21).

Evans further discloses: store data on the local site, the data including a local copy of a remote application that is running on a virtual machine located on the remote site (i.e. "JVMDI," col. 2 lines 61-64); and make it appear to the debugging system that the remote application is running on the local site instead of the remote site by establishing a communication link between the local site and the remote site; using the

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communication link between the local and remote site to establish communication between the debugging system and the virtual machine (i.e. "JDWP," col. 2 lines 65-67; col. 5 lines 19-35)

Evan does not explicitly teach establishing a communication link between a first router located on the local site and a second router located on the remote site. However, SAP teaches using a router was known in the pertinent art, at the time applicant's invention was made, to "set up an indirect connection when programs involved in the connection cannot communicate with each other due to the network configuration (SAP, page 7)." It would have been obvious for one having ordinary skill in the art to modify Evans' disclosed system to incorporate the teachings of SAP. The modification would be obvious because one having ordinary skill in the art would be motivated to control network access by using a router that "serves as an intermediate station (proxy) in a network connection (page 7)" between programs as suggested by SAP.

Evans discloses receiving a patch (i.e. col. 10, lines 26-35, Adding New Function section). Evans does not explicitly teach receiving a timestamp indicating when the remote application was last modified. However, Chen teaches using a timestamp for a version control was known in the pertinent art, at the time applicant's invention was made, to "represent the version of the asset (col. 77, lines 60-67)." It would have been obvious for one having ordinary skill in the art to modify Evan's disclosed system to incorporate the teachings of Chen. The modification would be obvious because one

having ordinary skill in the art would be motivated to control the version of a program as suggested by Chen (i.e. col. 77, lines 60-67; col. 72, lines 1-13).

Chen further discloses: using the received timestamp to determine whether the local copy is up to date with respect to the remote application; and loading the local copy into the debugging system if the local copy is up to date (i.e. "the asset may be associated with a package that has a *delivery timestamp equal to or less than the current time, and which has not already been deployed to the client,*" col. 72, lines 1-13; col. 78, lines 1-18; check sum information may be used as a "*timestamp*" to *determine the most current version of the data asset,*" col. 78, lines 15-17; If the data has not changed, the older timestamp may be returned or some other indication may be made that the data has not changed. Otherwise, if the data has changed, a new timestamp may be returned," col. 78, lines 19-35); otherwise (i) comparing the local copy with the remote application to establish delta information that identifies differences between the local copy and remote application (i.e. "the EAA creates a delta for the asset. A *previous copy of the asset may be compared with the current asset. The difference between these two assets is the delta that will be used to create the delta asset,*" col. 9 lines 18-24) , (ii) retrieving the delta information from the remote site, (iii) using the retrieved delta information to alter the local copy to match the remote application, and (iv) loading the altered local copy into the debugging system (i.e. "Therefore, *the complete new version of the asset does not have to be distributed, but only the deltas that exist between the older (prior) version and the new version,*" col. 8 , lines 8-18; "The EAA then performs a test 2707 based on the asset type to determine if a frame or delta



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needs to be generated. On an asset-by-asset basis, this is done to determine the differences between a prior asset, e.g. located on a client, and a current asset (latest version) typically located on the source/EIS," col. 9, lines 1-8).

Per claim 8:

Evans further teaches:

- the remote application is a component of a larger application that is running on the virtual machine (i.e. "connection to the JVM...Remote Debugger," col. 5 lines 36-45).

Per claim 9:

Evans further teaches:

- the virtual machine is a Java virtual machine (i.e. "connecting to the JVM," col. 5 line 36).

Per claim 10:

APA further teaches:

- the at least one firewall comprises a first firewall protecting the local site and a second firewall protecting the remote site ("a firewall protects each of the sites," spec, page 1, lines 14-21).

Per claim 11:

SAP further teaches:

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- the router is an SAProuter ("SAPRouter is an SAP program that serves as an intermediate station...in a network connection," page 7)

Per claim 12:

Evans further teaches:

send commands from the debugging system to the virtual machine using the communication link (i.e. Fig. 4; "connecting to the JVM...JPDA supports multiple types of connectors...attaching and listening...launching," col. 5, lines 47-52; "establish a connection to the JVM...Remote debugger," col. 5, lines 37-45).

Per claim 13:

Evans further teaches:

receive run-time data and state information about the remote application from the virtual machine through the communication link (i.e. Fig. 4; "connecting to the JVM...JPDA supports multiple types of connectors...attaching and listening...launching," col. 5, lines 47-52; "establish a connection to the JVM...Remote debugger," col. 5, lines 37-45).

Per claims 1-6, they are the method versions of claims 7-10 and 12-13, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 7-10 and 12-13 above.

Per claims 14-20, they are the system versions of claims 7-13, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 7-13 above.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-R 6:30-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MENG AI AN can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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